



U.S. Department
of Transportation

Research and
Special Programs
Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE NUMBER USA/0526/S, REVISION 0

400 Seventh Street, S.W.
Washington, D.C. 20590

This certifies that the source described has been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² for the transport of radioactive materials.

1. Source Identification - JL Shepherd 7810-0109-R
2. Source Description - The Type 304 stainless steel double encapsulation has outer dimensions of 9.52mm (0.375 in) in diameter by 211.28mm (8.318 in) long. The inner capsule outer dimensions are 7.94mm (0.312 in) in diameter by 207.36mm (8.164 in) long. End plugs on both capsules are sealed by Tungsten Inert Gas welds and the wall thickness of both the inner and outer capsules is 0.51mm (0.020 in). Source capsule shall be manufactured in accordance with J.L. Shepherd drawing No. A-0109-R-CS-1 (attached) and shall be engraved with information as specified in the drawing.
3. Radioactive Contents - Not more than 81.4 TBq (2200 Ci) of Co-60 in the form of solid metal.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 209 of the IAEA regulations¹ shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires January 31, 2002.

1 "Safety Series No. 6, Regulations for the Safe Transport of Radioactive Materials, 1985 Edition, as amended 1990" , published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

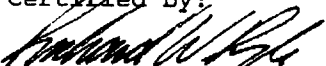
2 Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

(- 2 -)

CERTIFICATE USA/0526/S, REVISION 0

This certificate is issued in accordance with paragraph 703 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the petition and information dated September 26, 1996 submitted by JL Shepherd and Associates, San Fernando, CA, and in consideration of other information on file in this Office.

Certified by:



Alan I. Roberts

Associate Administrator for Hazardous Materials Safety

MAR - 3 1997

(DATE)

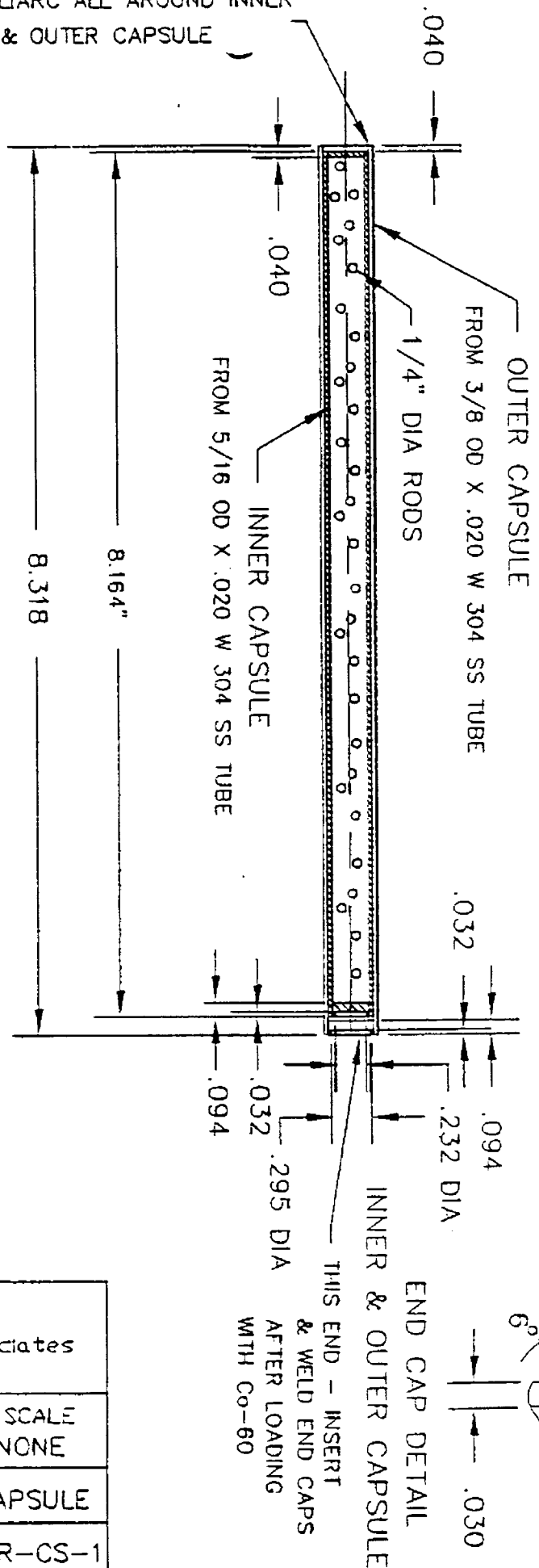
Revision 0 - Original issuance.

HELIARC ALL AROUND INNER
& OUTER CAPSULE

NOTES:

1. END CAPS - 304 SS
2. SOURCES CERTIFIED "SPECIAL FORM"
3. END CAPS HAVE .002 REGISTER
.001 CLEARANCE FIT
4. BEFORE LOADING, 1 END OF EA TUBE
WELDED & HELIUM LEAK TESTED TO SENSITIVITY
OF 1×10^{-6} CC/MIN
5. REMOVEABLE CONTAMINATION (LEAK TEST)
AFTER LOADING $\leq 5 \times 10^{-3}$ μ CI
6. SCRIBE / ENGRAVE 3/32" HIGH LETTERS:

JLS 7810-109 R. _____ CI Co-60
S/N _____ DATE _____



J. L. SHEPHERD and Associates

DRAWN BY TRAN	DATE 09-10-96	APPROVED BY <i>[Signature]</i>	SCALE NONE
------------------	------------------	-----------------------------------	---------------

7810-109R SERIES Co-60 SOURCE CAPSULE

MODEL 109R

A-0109-R-CS-1